

EXPERIMENTAL FARM

WEEKLY LETTER

ALFALFA VARIETIES FOR SOUTHERN ALBERTA

Recent inquiries indicate that many farmers see the need for a replacement of Grimmalfabud do not know what variety to choose. Grimm has been the outstanding variety in Central Canada because of its cold resistance. It is a high yielding, fine quality alfalfa. Unfortunately it is not resistant to bacterial wilt and during recent years stand reduction and losses from this disease have been very high. The disease is progressive and it is not until the stand is three years old or older that losses are pronounced. For those wishing alfalfa fields to last for more than three years, Grimm is no longer suitable in the irrigated areas of southern Alberta.

At the present time the only available variety suitable as a replacement for Grimm in this area is on that was introduced from Northern India. This variety is Ladak. Ladak is partially wilt resistant and is sufficiently winter hardy to be suitable for Western Canada and United States. In tests here it is equal to and in some cases, superior to Grimm in yield. It has more drought resistance than Grimm. It has resistance to stem and leaf diseases and consequently it retains its leaves longer thus producing a high quality hay. Seed of this variety is now available from commercial seed houses in Alberta.

A number of new varieties have been given some publicity in the press during the past year. Ranger, developed in Nebraska and Buffalo, developed in Kansas are two well

resistant varieties. Unfortunately they are not sufficiently winter hardy for Western Canada. The University of Alberta variety, Perax, is a high seed producing variety. Because it was selected from Grimm it is very susceptible to bacterial wilt. Rhizoma is a creeping rooted variety from the University of British Columbia, developed for pastures and to withstand winter heaving. Unfortunately it also is susceptible to bacterial wilt.

A NEW APPROACH TO BREEDING FOR SAWFLY RESISTANCE

One of the major projects at the Cereal Breeding Laboratory of the Lethbridge Experimental Station is the production of new improved varieties of wheat capable of resisting ravages of the wheatstem sawfly. Personnel of this Laboratory, recently transferred from the Experimental Station at Swift Current, Saskatchewan, took a leading part in the development of Rescue, the only variety of bread wheat available for

commercial production which will resist sawflies. Unfortunately this resistance breaks down in some areas and even where Rescue is now resistant there is the possibility that new races of sawflies may develop which will cause extensive damage.

The plant breeder brings about improvement in plants by combining the best characters of one variety with those of another through a process of crossing, selecting and testing. He cannot create desirable characters but must seek them in existing material. Once they are found the job becomes one of transferring them to the crop in question, in this case hard red spring wheat.

Dr. C. W. Fairstad of the Dominion Entomological Laboratory here in Lethbridge some years ago observed that tall wheatgrass technically known as *Agropyron elongatum* was

very much more resistant to sawfly than even the most resistant wheat varieties. Plant breeders have known since 1933 when it was first demonstrated in Russia, that wheat could be crossed with this grass but they also knew that the job of transferring a specific character from grass to wheat was not an easy one. In animals the cross between the buffalo and the domestic cow is somewhat similar. The original cross is not difficult to make but the resulting hybrid may be completely sterile and certainly if a hybrid is not able to reproduce itself it is worth very little in spite of all the potentially good features it might possess. However, in the case of the cross between wheat and grass, occasionally a few seeds are produced and it is on these that the breeder concentrates his efforts.

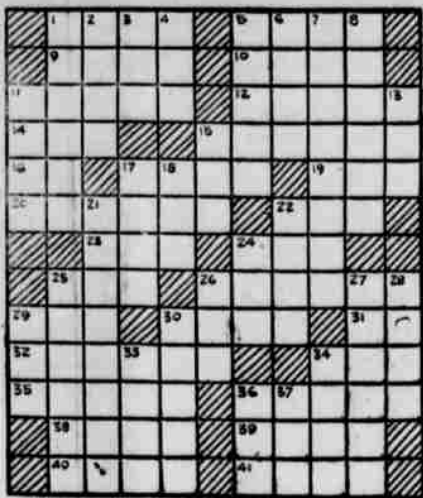
Using this knowledge it was decided to endeavor to transfer the type of sawfly resistance found in tall wheatgrass to a bread wheat instead of depending only on resistance found in wheat. A large number of wheat-grass crosses have been made and the progeny are under study at this laboratory. The job now is a long process of eliminating the unwanted characteristics either by growing one generation after another and selecting the desired types or by repeatedly crossing to the wheat parent retaining in so far as possible the sawfly resistance of the grass. It is a time consuming and laborious process and while the original objective may not be reached the rewarding feature is that new and important combinations of characteristics may occur. For example, extreme winter hardiness of the grass may be transferred to wheat to give a very hardy winter wheat variety but that is still something to be determined.

MRS. LOUIS TO DIVORCE CHAMP



Heavyweight Champ Joe Louis told newsmen in Chicago that his wife, the former Marva Trotter, had gone to Mexico to file suit for divorce. Louis is shown with his wife and child.

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|----------------------------------|-----------------------------------|--|------------------|
| ACROSS | DOWN | 18. Female fowl | ANSWER ON |
| 1. Kind of ax (archeol.) | 1. Box | 21. Made to fit | PAGE 7 |
| 5. Subsides | 2. One of the Great Lakes | 22. Game of chance | |
| 9. Scope | 3. Sheltered side | 24. Boulder | |
| 10. Additional amount | 4. Little boy | 25. Straight-forward | |
| 11. Removed moisture | 5. Live coal | 26. Jolt | |
| 12. A support | 6. Material made of poor diamonds | 27. Mark used to denote a spurious passage | |
| 14. Devoured | 7. Plaiting | 28. Wooden pegs | |
| 15. To go to bed | 8. Private | 29. King of Judah | |
| 16. Sign of the infinitive | 11. Facts (post.) | 30. Greek letter | |
| 17. Scorch | 13. Even | 33. Variety | |
| 19. Lair | 15. Male sheep | | |
| 20. A song of praise | 17. Fragment | | |
| 22. Suitable | | | |
| 23. Hebrew letter | | | |
| 24. Is able | | | |
| 25. A mere taste | | | |
| 26. Cant | | | |
| 29. Trouble | | | |
| 30. Well border | | | |
| 31. Board of ordinance (abbr.) | | | |
| 32. A social gathering of men | | | |
| 34. A limb | | | |
| 35. Spring month | | | |
| 36. Buckets | | | |
| 38. A spring fast period (Eccl.) | | | |
| 39. Ostrich-like bird | | | |
| 40. One of Old Norse works | | | |
| 41. Soft bunches, as of cotton | | | |



"Miss Newfoundland"

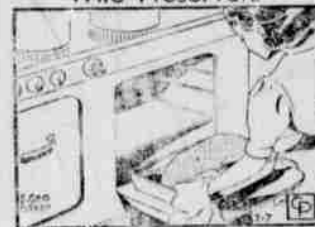


Mary Dawe, 19-year-old blonde from Bay Roberts, Nfld., who was chosen "Miss Newfoundland" at a contest held in St. John's. Four girls competed in the finals. Canada's newest province thinks there is a chance that Miss Canada of 1949 will be a Newfoundland girl.

BODY LUBRICATION

In warm weather the human body may need less food for fuel, but it requires more lubrication. And experts point out that the body is "water cooled". If allowed to run dry it may "knock". If people prefer drinks, as well as it may "knock". other things, "sugar coated" the health people suggest that there is variety as well as spice in fruit juices. These may be chilled, but should not be diluted with too much ice.

Wife Preservers



It is not necessary to pick the skin of a duck or goose before or during cooking. To save time, to cook at a slow to moderate temperature the best results.

DESPAIR IN UTAH



Fred Tomayso, of the Navajo tribe, stands behind a frozen pile of 16 dead lambs on his ranch in the Navajo reservation. Tomayso, shown holding two dead lambs, lost 70 of his herd of 110 head. Untold hardship was suffered by the Indians and their stock who were cut off from food and fodder for many weeks during the heavy snows which blocked off area.

**THEY LOOK ALIKE!
THEY FIT ALIKE!
THEY ARE ALIKE!**

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JOHN DEERE SALES AND SERVICE RAYMOND PHONE 23

SCOTT'S SCRAP BOOK By R. J. SCOTT

PORTLAND HEADLIGHT IS 116 MILES NEARER EUROPE THAN ANY OTHER AMERICAN PORT.

SCRAPS

PROBABLY THE NEAREST ONE COULD EVER GET TO GOING ABSOLUTELY NO PLACE WOULD BE TO GO TO THE POINT AT WHICH THE PRIME MERIDIAN CROSSES THE EQUATOR, JUST WEST OF THE COAST OF AFRICA. GEOGRAPHICALLY IT IS LATITUDE 0 AND LONGITUDE 0.

WHAT PER CENT OF A FISH'S NUTRITION IS DERIVED FROM THE ATMOSPHERE? 90 PER CENT.

THE TELESCOPE FISH - OF THE GOLDFISH FAMILY - CAN TURN ITS EYES IN OPPOSITE DIRECTIONS.

UNEMPLOYMENT INSURANCE BOOKS MUST BE RENEWED

EMPLOYERS!—Please send all unemployment insurance books immediately to the National Employment Office with which you deal, unless renewal arrangements have already been made.

They must be exchanged for new books before March 31st. The new books have spaces for March contributions, so you can renew the old ones before the end of the month.

Renewal of books is important to you, to your employees and to the Commission. Please Act Promptly.

TO THE INSURED WORKER!—Have you an insurance book in your possession? If so, please take or send it to the nearest National Employment Office for renewal before March 31st. If you send your book, enclose your present address so that your new book may be returned to you promptly.

UNEMPLOYMENT INSURANCE COMMISSION

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FOR THE BRIDE and her attendants!

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Elco THE MATCHBOX FOR VALUE \$23.75

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